

REMARKS/ARGUMENTS

Claims 1-32 were pending of which Claims 1-3, 6-8, 11-18, 21 and 23-26 were rejected and Claims 4, 5, 9, 10, 19, 20 and 22 were objected to. Claims 2, 4-11, 16, 17, 19, 22, 23, 26 and 29 have been amended and Claim 1 has been cancelled. Claims 33-37 have been added.

The Examiner objected to Claims 4, 5, 9, 10, 19, 20 and 22 as being dependent upon a rejected base claim, but indicated that these claims would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. Claims 4, 5, 9, 10, 19, 20 and 22 have been so amended. Thus, the scope of Claims 4, 5, 9, 10, 19, 20 and 22 has not been narrowed. No new matter has been added to the claims.

Specification

The specification has been amended to correct a clerical error at page 16, line 21.

Claim Rejections – 35 U.S.C. §112

Claim 6 was rejected under 35 U.S.C. §112, second paragraph, because the limitation "second metal" lacked antecedent basis in Claim 1. Claim 6 has been amended to depend from Claim 2, which recites "a second metal." Accordingly, this rejection has been overcome.

Claim Rejections – 35 U.S.C. §102

Claims 1, 2, 6 and 7 were rejected under 35 U.S.C. §102(b) as being anticipated by Zalesinski et al.

Claim 2 depended from Claim 1. Claim 2 has been rewritten in independent form by incorporating all of the limitations of Claim 1 into Claim 2. This is an amendment in form only. The scope of amended Claim 2 is identical to the scope of pre-amendment Claim 2 (see 35 U.S.C. §112 ¶4). Claim 1 has been canceled.

In applying Zalesinski et al. against Claims 1, 2, 6 and 7, the Examiner identified the "feature 8" shown in Fig. 4 of Zalesinski et al. as the "metal studs" recited in former Claim 1. Claim 2 recites "wherein said studs comprise a first metal, a layer of a second metal

being formed on said flat bottom surfaces of said studs." Although Claim 2 was rejected over Zalesinski et al., the Office Action did not indicate where or how Zalesinski et al. teaches "a layer of a second metal being formed on said flat bottom surfaces of said studs."

Zalesinski et al. refer to the "feature 8" as "electrically conductive pins" (col. 3, lines 17-18). After a careful reading of Zalesinski et al., Applicants respectfully submit that Zalesinski et al. do not teach "a layer of a second metal ... formed on said flat bottom surfaces" of pins 8. The rejection of Claim 2 as anticipated by Zalesinski et al. is not supported by the teachings of Zalesinski et al.

Claims 6 and 7 depend from Claim 2 and are therefore also allowable over Zalesinski et al.

Claims 1, 2, 6, 7 and 11 were rejected under 35 U.S.C. §102(b) as being anticipated by Choi. The Examiner identified "features 14" shown in Fig. 4D of Choi as the "metal studs" recited in former Claim 1. Although Claim 2 was rejected over Choi, the Office Action did not indicate where or how Choi teaches "a layer of a second metal being formed on said flat bottom surfaces of said studs."

Choi refers to "features 14" as "a plating thin film or disposable film" (col. 2, lines 51-52). Applicants respectfully submit that Choi does not teach "a layer of a second metal ... formed on said flat bottom surfaces" of plating thin film or disposable film 14. The "flash 19" shown in Fig. 4D cannot be viewed as a "layer of a second metal" because flash 19 "is adhesively formed on the surface of the plating thin film 14" during the "resin molding" process (col. 3, lines 19-25). Thus flash 19 apparently consists of a non-metallic material. Nor does it help to view the leads 13a,13b as the "metal studs" of amended Claim 2, since leads 13a,13B do not "protrud[e] from a bottom surface of said capsule," as recited in amended Claim 2.

There is a second, independent reason why Claim 2 cannot be rejected as anticipated by Choi (as interpreted by the Examiner). As amended, Claim 2 recites "a plurality of bonding wires, each of said bonding wires extending between a first bonding location on said die and a second bonding location adjacent an upper surface of one of said metal studs" (emphasis added). The Examiner correctly views features 17 of Choi as bonding wires (col. 3, lines 17-20). But if plating thin film or disposable film 14 of Choi is

considered to be the "metal studs" of Claim 2, the bonding locations of wires 17 are clearly not "adjacent an upper surface of one of said metal studs," as required by Claim 2.

The Office Action states that the "wires 17 are connected at a location which is considered adjacent to the studs since the features 13b are connected to the studs." But the Applicants respectfully submit that the Examiner's argument ignores what Claim 2 plainly recites. Claim 2 recites "a second bonding location adjacent an upper surface of one of said metal studs." As Choi's Fig. 4D clearly indicates, bonding wires 17 do not extend to bonding locations "adjacent an upper surface" of thin plated layer 14.

Claims 6, 7 and 11 depend from Claim 2 and are therefore also allowable over Choi. Furthermore, Claim 6 is also allowable over Choi because Choi does not teach "a second layer of said second metal formed on said upper surface of each of said studs."

Claim Rejections – 35 U.S.C. §103

Claims 3, 8, 12, 14-18, 21 and 23-26 were rejected under 35 U.S.C. §103(a) as being unpatentable over Choi as applied to Claim 1.

Each of Claims 3, 8, 12, 14-18, 21 and 23-26 depends from and further limits Claim 2. As described above, Claim 2, as amended, distinguishes over anything taught or suggested in Choi. Therefore, each of Claims 3, 8, 12, 14-18, 21 and 23-26 is allowable over Choi at least by reason of its dependency on Claim 2.

Allowed Claims

Claims 27-32 were allowed. Claim 29 has been amended to correct an obvious clerical error. The scope of Claim 29 has not been changed.

New Claims

New Claims 33-37 have been added. Claims 33 and 34 depend from Claim 9 and are supported at least by Fig. 2A. Claims 35-37 depend from Claim 10 and are supported at least by Fig. 6A. Claims 9 and 10 were held to be allowable if rewritten in independent form, which has been done. Accordingly, Claims 33-37 are allowable.

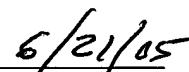
For the above reasons, Applicants respectfully request allowance of Claims 2-26 and 33-37. Should the Examiner have any questions concerning this response, the Examiner is invited to call the undersigned at (408) 982-8201.

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Date of Signature

Respectfully submitted,



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